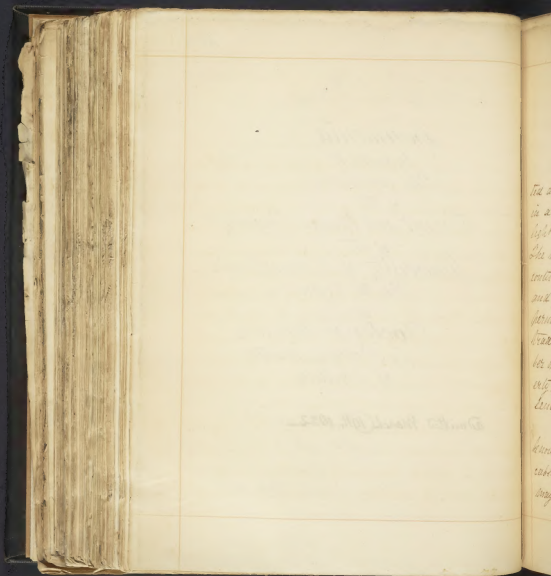


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Inaugural Essay
on
Pneumonia
Submitted to
The examination
of the
Provost and Medical Faculty
of the
University of Pennsylvania
For the Degree
of
Doctor of Medicine
By Fontaine Watson
of Virginia

admitted March 10th 1822

Mrs. Yonge

Jan. 23d 1822



Pneumonia

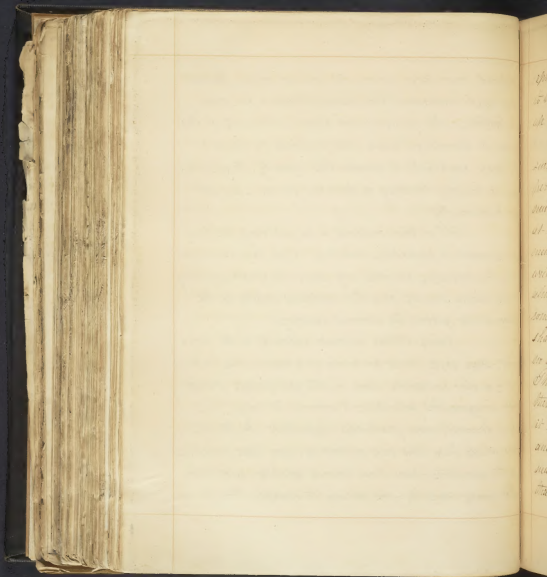
It is observed somewhere by a celebrated author, that original genius is seldom to be found in a country where the literary taste is formed and the light of knowledge equally diffused among its citizens. The number of cultivated minds which there abound, contrains the same author, resemble a forest of thick and flourishing trees, where no single individual is permitted to rear his head far above the rest: where trade is in few branches, we meet with a small number of overgrown fortunes in the midst of a general poverty; and in proportion to its extension, we find opulence general, and great fortunes rare.

The preceding observation, tho' made of knowledge in a general point of view, is no less applicable to the several branches of knowledge, among which may be reckoned medicine. The equal diffusion of

medical knowledge among the medical world, prevents any single individual from rearing his head far above his brethren. The general and liberal cultivation of this branch of knowledge, aided and promoted by means of the press, contribute to preserve this equality. Hence we see no solitary towering of medical genius; we see an Hippocrates.

It is true, medicine is, as yet, very far from an approach to perfection: but this, so far from invalidating the preceding remarks, only proves the great difficulty of the science, arising from the mysterious nature of the laws which govern the animal economy.

owing to this inherent difficulty of the subject, some eager spirits, ambitious of a name, and impatient of slow inaction, have, in the fruitfulness of their own imaginations, attempted to account for every thing, by a favorite and gratuitous hypothesis. Of the theories which have thus been attempted, some have perished in the unpopularity, some have proved obsolete, and others, tho' having had the good fortune to sparkle through an



ephemeral existence, have soon followed their founders
to the forgetfulness of the laity; or else, have been held
up as marks of ridicule to the philosophical world.

Notwithstanding, however, the enmity of
such theories, it must be confessed, that at no former
period has the science of medicine exhibited more mi-
nuteness of detail, and perfection of description, than
at the present moment. Scarcely a disease can be
mentioned which has not been treated of by medical
writers, and handled with a degree of precision, which
almost precludes further improvement: until, at least,
some more general principle than we yet possess
shall serve to guide us in our enquiries. Certainly,
no disease is better understood and described than
Pneumonia, the subject of my dissertation. Almost
therefore, this general profusion of medical detail, where
it would seem one had nothing, but to select, compile
and arrange, it is not to be expected that any thing
new or interesting should be advanced; or indeed
that ground should be taken, which had not been

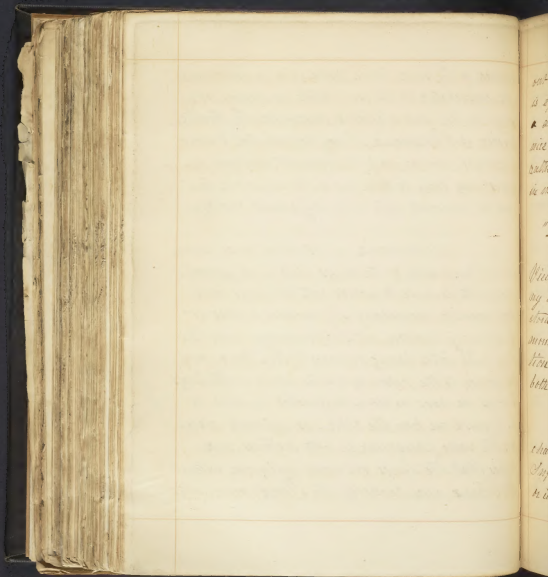
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occupied a thousand times before, and in some measure, consecrated to the use of others by previous occupancy, or long and established prescription. On treating, however, of Pneumonia, I may be permitted to make or perhaps more properly to interpolate whatever remarks may seem to arise out of the subject or indeed be connected with it by any remote analogy.

Pneumonia, in its literal sense signifies inflammation of the Lungs; but in its general acceptation, it is made to include both the Lungs and their investing membrane. By medical writers it is commonly divided into Peripneumony, and Pleurisy; the latter having reference to the Pleura, and the former to the parenchymatous portion of the Lungs. But, as we have no set of diagnostics by which to distinguish one from the other; as dyspnoea occurs the same phenomena in both instances, and proves that the Lungs are never inflamed without the Pleura, and conversely, the Pleura, never with-

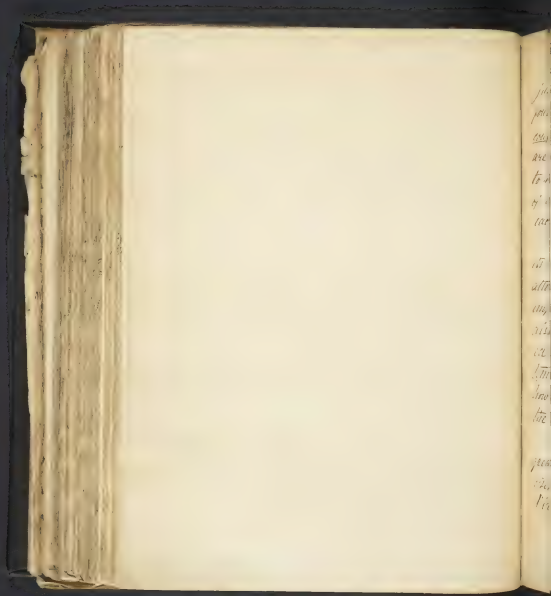


that the 21st is a Sunday as the 20th was a Sat.
I cannot see the connection between that and
a date 34,000 years ago. The 21st is a Sunday
and intimates the beginning of a new day, a new
epoch, the 34th, the 35th, and the 36th, are part
of another day, the 37th.

— *And the other day*

Placing Margin, the instrument between Angles
by one hand as with I would have it smaller
in that substance of my hand in mine. In-
crease or in other words is because of the
line, may be considered as quality appearance to
both these divisions

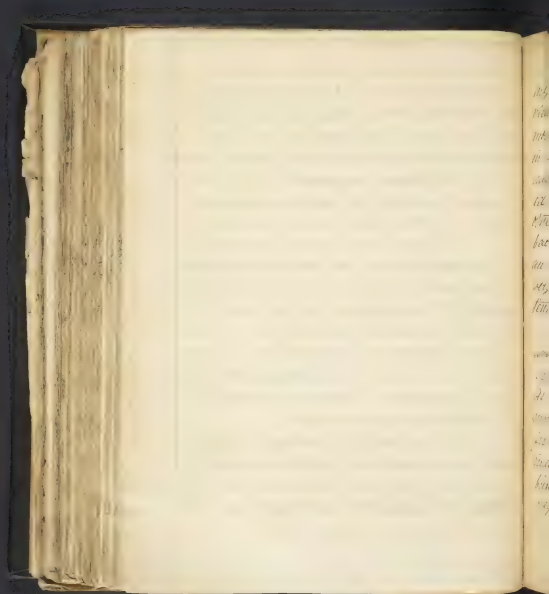
Perhaps there is no disease more certainly
characterized by its symptoms than Rheumatic
Fever. However various its character
or its degree of violence, it is always attended, as



justly remarked by Dr Cullen, with these four symptoms, namely, fever, difficult breathing, cough and pain in some parts of the thorax. These are the most prominent symptoms, subject however to many modifications, in proportion to the degree of violence, or lenity of the disease, and carrying each in its train a band of minor symptoms.

The fever may be gradual and mild in its approach, or sudden and violent in its attack attended with a full, strong, quick and hard pulse imparting to the fingers a thread like sensation; also with increased heat white tongue, high colored urine, depression of strength, and other symptoms which commonly attend fever. The pulse however, is sometimes low and soft, especially in the advanced stage of the disease.

The difficulty of breathing is always greatest during inspiration; and this evidently arises from the difficulty and pain, attendant on the dilatation and action of the inflated lungs by the



inspired air. Hence expiration which is accompa-
nied with a relaxation of the parts is performed with
more ease. The quantity of breathing is also varied
in some measure by the posture of the body. It is com-
monly greatest when the patient lies on the affec-
ted side. The sneezing sometimes happens. At
other times a pain about the base of the lung is his
back: and there can not remain a full supply in
an erect posture. This last may be considered a
very dangerous symptom, as indicating great ex-
tent and violence of the disease.

The cough varies considerably in urgency
and violence. At first it is attended with little
expectoration, and this of a thin and mucous nature.
As the disease advances the expectoration becomes
more copious and of greater consistence; and is
in the last part tinged with blood. Sometimes,
however, the excretion consists almost entirely of
blood; but without the injurious consequences that
usually attend a severely hæmoptoe.

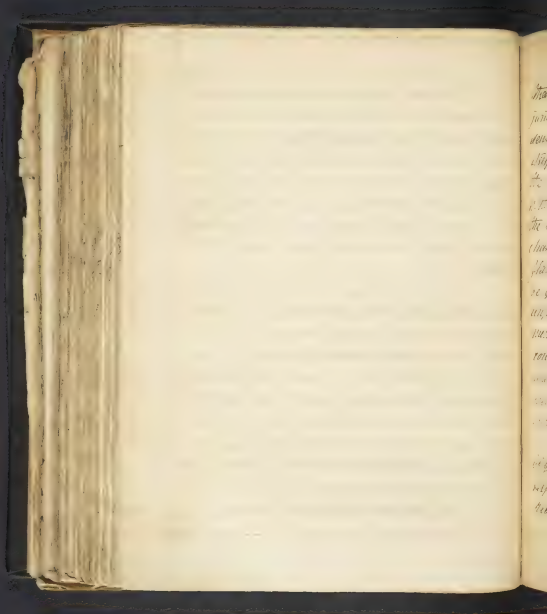
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The pain may be either sharp and pungent, or dull and stite, accompanied with rather a sense of weight and oppression, than of acute feeling. It can move it is usual and at another, shooting in various directions through the chest. It may be felt either under the breast bone, or in the back between the shoulders; but its most common seat is in the side. In fine, it may occupy any part of the thorax.

Amongst the causes of Pneumonic inflammation there is none which so strongly claims our attention as cold both on account of the frequency of its occurrence, and the certainty of its pernicious influence. In a great majority of cases, Pneumonic inflammation may be traced to this cause. But cold in its impression on the system may depend on a variety of circumstances; — It may depend on vicissitude of weather, on change of clothing, or on partial exposure.

It may not be improper to remark here



that vicissitude of weather is not attended with injurious consequences, unless it be sudden. It is the suddenness of the vicissitude rather than the vicissitude itself, which constitutes the noxious cause, and deranges the functions of the animal economy. If the vicissitude of the weather be slow and gradual in its progress, the body has time to accommodate itself to the approaching change, and we see no catarrhs, no Pneumonic Inflammations. But, if in the contrary, the vicissitude be quick and sudden, the body is surprised in an unprepared state, and falls a victim to the numerous diseases, which now abound through the country. Hence we see the prevalence of various sorts of complaints during the spring when the weather is remarkable for the frequency and suddenness of its changes.

It would indeed seem that the human body has a wonderful capacity for accommodating itself to surrounding circumstances; and hence the reason that natives of a sickly climate live not

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the usual term of *inocuity*, and the maffacles
breathes with impunity, the various vapours, &c. a
miasmatic danger. This aggressive principle in-
vades the constitution, requires time for the exertion
of its energy. It cannot all at once sweep off the
evil effects arising from new and untried situations.
It is for this reason that most of the unfortunate
natives who are transported from Africa to the
West-Indies live but a short time after their arrival
and commonly die in what is called the seasoning.
It is for the same reason also, that the culprit men-
tioned by Sanctorius, when brought into the pure air
was taken ill, and could not be relieved, till car-
ried back to his former noxious habitation. If
such then be the evil effects of new and unaccus-
tomed situations, that even a change, from sea to
pure air, when made too suddenly, is prejudicial
to the constitution, how easy is it to suppose the
evil consequences which arise from the sudden
impression of cold on the system, whether the

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impression be made by discipline & exercise
by change of clothing, or by partial exposure.

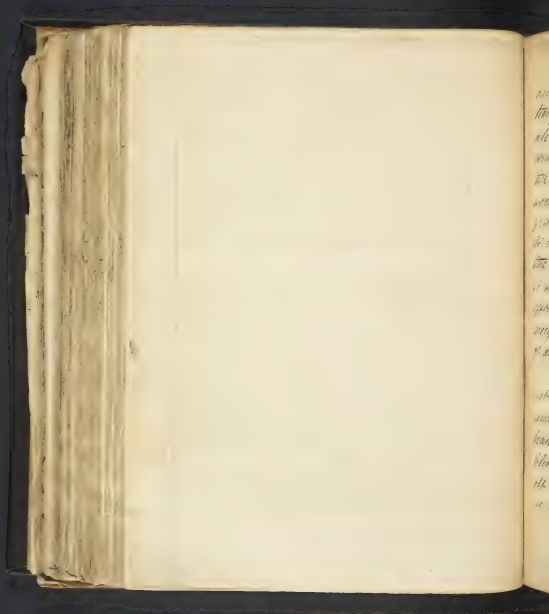
There is perhaps no disease, which requires
a closer attention from the physician, than Pneumonia
or Suppuration: it demands a more prompt
and vigorous practice. It is very well known that
inflammation, when it attacks the pulmonary system
or its neighbourhood, advances with rapid strides;
and if not timely arrested, is apt to make a havoc
on those parts, which cannot yet be matured into after-
wards remedy. — Suppuration ensues; the patient
becomes consumptive, and lingers out the remainder of
his days in a miserable existence, or else, sinks at
once into an untimely grave. But even admit, the
disease does not advance this far; — suppose the pa-
tient gets about again; he may yet have been im-
perfectly cured; adhesions may have formed; organ-
ic derangement may have taken place: and the
patient be, forever afterwards, predisposed to a re-
petition of the disease. Viewing, therefore, the dis-

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case, either as tending to a fatal extreme itself, or, by an imperfect cure, precipitating the constitution to similar attacks, it is obvious that an energetic practice is equally required, in both instances. To abstain from surgery would be criminal; and while the patient with a timid practice, would be tantalized by the illusive hope of recovery, the violence of the disease would be advancing with all the certainty of a dreadful reality.

But happily for mankind, we here have a remedy as safe and efficacious, as the disease is dangerous and violent. This remedy is blood-letting; and without it we should not be able to do any thing. It is indeed the sheet anchor on which rests the hope and safety of the patient. But blood-letting, in order to be successful, must depend upon two circumstances. It must be made in large quantity and through a large orifice.

If only a small quantity of blood is drawn, the system may indeed experience relief; but it is



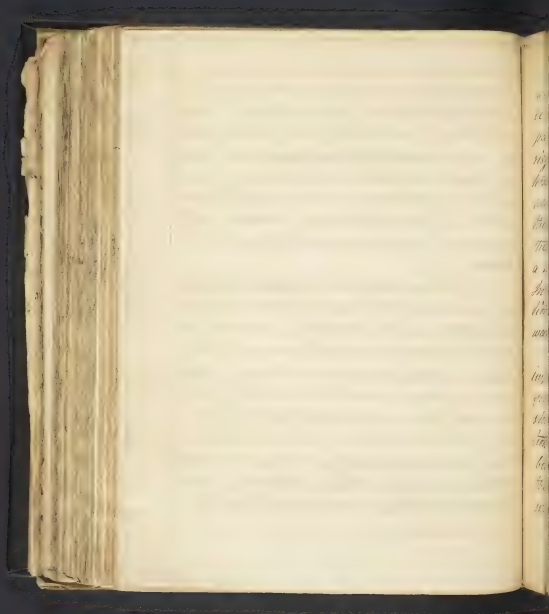
only temporary. The inflammation like a fire, eventually extinguished, breaks out afresh, and resumes all its former force. Blood, indeed, may again be drawn; the patient may again find relief - and the disease again return; until the unhappy patient worn out by repeated loss of blood and repeated aggravation of the disease, should at length sink below to recover. But if a large quantity of blood is drawn the disease is at once cut short. The inflammation is arrested in its progress, and gives way to the sanative efforts of the constitution. By this measure it will be necessary to bleed until there is abundant remission of all the symptoms, & the patient sleeps.

But moreover; the relief obtained from the abstraction of a large quantity of blood will be greater and more durable, if the issue be a large one. Sydenham had observed this. He remarked that when the blood trickled down beside the arm, in consequence of running off in a horizontal stream the effect was not nearly so salutary. A man of a great practical sense, he



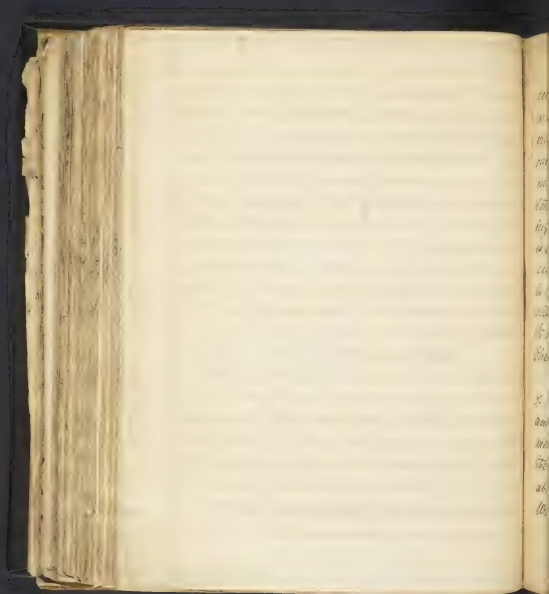
was acquainted with the fact, but did not trouble
himself with accounting for the principle. It belong-
ed to Gendry to attempt this; and to give at least
an air of plausibility to his reasonings. But what-
ever may be the principle of its operation it is now
confessed by practitioners on all hands that the de-
traction of blood from a large effluvia is attended with
advantages to be derived from no other mode of
practice

But as warmly as I recommend a bold
and vigorous use of the lancet in Pneumonic In-
flammation, I would nevertheless be understood with
proper limitations. It is a well known fact, that
when an epidemic prevails a country it sub-
jects all minor diseases to its dominant influence
and forces them, in a great measure to wear its
color. When an epidemic, for example prevails,
of a typhoid type, Pleurisy, Catarrh, and all other
diseases of a spasmodic nature, partake of the same
typhoid character, and as copious bloodletting



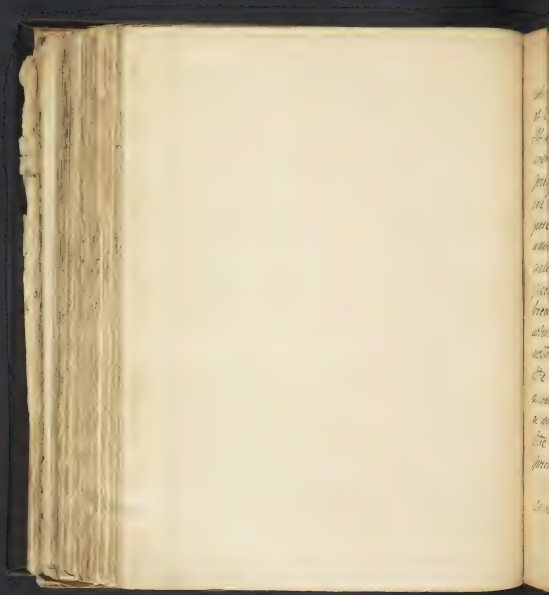
would be dangerous in the one instance, so it would
be equally prejudicial in the other. Some know a
patient taken down with violent symptoms of Au-
rissa. The attending physician guided by the symp-
toms of acute so well marked, had no one
more than him in copious. The consequence was that
the symptoms soon assumed the typhoid nature of
the reigning epidemic, and the patient sunk into
a state of debility from which he never recovered.
In cases of this kind therefore, it is best to be cau-
tious:—to administer in small quantities and to
watch the symptoms.

Heat & bloodletting, has ever been the most
important of our remedies in this disease. It is a
question among practitioners at what time these
should be applied. Some contend that their applica-
tion should be simultaneous with the destruction of
blood; while others on the contrary maintain that
they ought not to be applied until the action is in
some measure reduced by the previous use of the em-



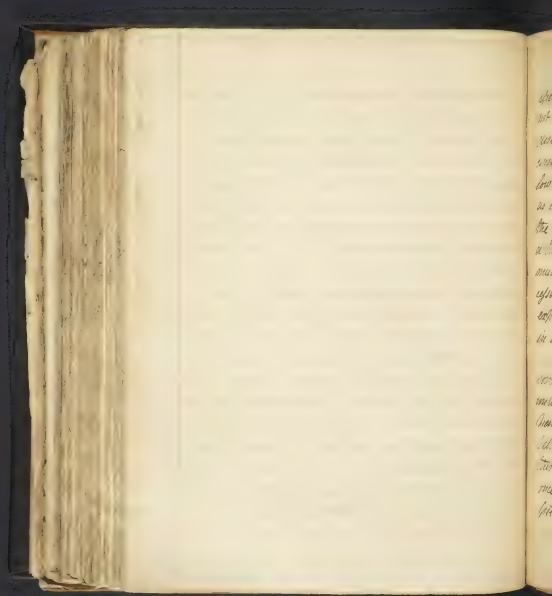
set. Effluents are equally repudiable on both sides, and except that attended both sides of practice inevitably I am inclined to believe that the application of a blister, before the activity of the pulse is unreasonably abated by venesection is always attended with some degree of success. Considering the exacerbations of febrile symptoms, which is apt to follow the stimulus of a blister it would seem more the advice to be the best practice, first, to reduce the activity of the pulse to the proper standard of excitement, and secondly, after the application of a large blister plaster, immediately over the seat of the pain.

This constitutes the most important part of the treatment of Pneumonic Inflammation, and frequently the disease will yield to this treatment alone. But it is usual at this stage, when the violence of the inflammation is in a great measure abated to administer some mild diaphoretic. Whether diaphoretics possess the importance



which is commonly observed from the treatment
of disease, I have not time at present to discuss.
It is sufficient for my present purpose, that it
merely promotes the usual action of the lungs. It
produces therefore a gentle perspiration the contin-
ual powder will, perhaps answer as good a pur-
pose as any: and it is alleged its effects are
advantageous that at the same time it produces a
secretion to the surface, it also promotes ex-
pectorations, so desirable at this period. — To
break down and dissolve the thick tenacious phlegm
which often oppresses the patient about this time
nothing I am inclined to believe, is superior to
the inhalation of warm vinegar and water. This
warms and stimulates the bronchial cells to
a more abundant secretion, which mixing with
the tenacious phlegm lessens its viscosity and
promotes its discharge.

(And here I may mention that it seems
to me extremely probable, that expectoration, &c, is



speak more accurately, the generation of phlegm is not the cause but the effect of unobscure. The disease has taken a favorable turn, and the natural consequence is the accumulation of a thick and yellow matter in the trachea and bronchial cells. Just as in catarrh, when the patient begins to get better, the secretion of the Schneiderian membrane, assumes a thick and yellow appearance. This pituitous accumulation, therefore, in the bronchial cells, being the necessary consequence of a favorable turn in the disease expectorant, so called, can do no more than assist in its expulsion.

At the close of the disease, the patient is sometimes affected with a troublesome cough, which continues to linger by pain, when all other symptoms have disappeared. For this there is no remedy better than Opium. I have known a case where this cough, having been kept up two months, was at once put a stop to by the administration of an Opium pill. By what magic influence the medicine thus

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Operatio, it is difficult to tell. The fact only, I re-
late

It seems almost unnecessary to mention, that,
as operating with the preceding plan of treatment
the bowels ought to be kept gently open, and that
antiphlogistic regimen strictly adhered to. These
indeed, are indications to be fulfilled in almost all
diseases.

